SportsMEDIA Technology (SMT)
Application for Special Temporary Authority
Description of Purpose of STA
File Number 1794-EX-ST-2021

SMT (SportsMEDIA Technology), a media technology firm, is and has been in the process of developing, refining and testing a Wireless Data System, to provide data communications during professional hockey games inside arenas. SMT's Infrared Puck- and Player-Tracking system generates over 1 million 3D coordinates/data points over the course of a regulation game, creating enhanced experiences for broadcast partners, fans, NHL digital platforms, and coaching and scouting applications. Through embedded tracking devices, fans can see real-time data, such as a player's ice time, zone times, speed and travel, all integrated into SMT's OPTICS system to provide a variety of virtual and enhanced presentations for viewers, live, in instant replay, and in packaged replays via broadcast, satellite, broadband and cable media. This system is ready for proof-of-concept and performance testing in hockey arenas now. Because the radios used inside the arenas are not yet certified for regular Part 15 operation, an STA is necessary.

The radio units to be installed at the base stations and rovers are identical. The radio itself is a direct sequence spread spectrum unit, using production radios for 2.4 GHz. The system may ultimately be deployed on an unlicensed basis in the 2.4 GHz band or elsewhere. The test units (four per hockey arena per event) are to operate on a center frequency of 2.475 GHz, using 4M60G1D and 4M60G7D emissions. The TPO is 0.5 W, and ERP in the test units is approximately 1 watt.

The application specifies test deployments at NHL venues in the next six months. The venues for testing the product are initially only hockey games.

An Intersil baseband processor performs the Direct Sequence modulation and demodulation. It is part of a five-chipset developed for the 802.11b standard. It uses $1/4^{th}$ of the standard 802.11 speed resulting in a relatively narrow occupied RF bandwidth. The power supply generates 3.3 Volts to power all circuits of the board. The radio, including the power amplifier, amplifies the signal up to 30 dBm. Power measurement is active, and keeps the transmit power at the desired level. Transmitter output is programmable, from 0 to 28 dBm. The occupied bandwith is 4.6 MHz.

This is an exceptionally low-power system used over very short ranges within enclosed sports arenas for short periods. It is not believed to have any significant interference potential. Any unexpected complaint of interference will result in cessation of operation until the interference is corrected. Similar STA grants have been authorized and conducted over the past few years for a similar system developed by an SMT subsidiary, Sportvision, for automobile racing without any interference reports whatsoever.

The stop-buzzer contact for all venues is Maren Thompson, Systems & Logistics Manager SMT, whose mobile telephone number is 510-332-8022 . Other inquiries can be addressed to the office of counsel for the applicant, as follows:

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